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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/488,351	01/20/2000	Terry L. Cole	2000.023000	4297

23720 7590 08/13/2003

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HOUSTON, TX 77042

EXAMINER

AHN, SAM K

ART UNIT	PAPER NUMBER
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2634

DATE MAILED: 08/13/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/488,351

Applicant(s)

COLE, TERRY L.

Examiner

Sam K Ahn

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on amendment, received on 6/2/03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-34 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gross et al. US 2003/0026282 ("Gross") in view of Palm US 2003/0103559 ("Palm").

Regarding claims 1, 12, 21, 28 and 33, Gross discloses a method and apparatus comprising: establishing communication between ATU-R (ADSL Transceiver Unit, Remote) and ATU-C (ADSL Transceiver Unit, Central Office) described throughout the description. After establishing communication channel in initialization period (12 in Fig.8), Gross explains (note paragraph 58-63) power level is adjusted to maintain optimum performance, and teaches power level adjustment for establishing a communication between two transceivers. In response to establishing the communication channel by receiving the message from ATU-R (212 in Fig.8), Gross further teaches determining a training parameter in the communication channel responsive

Art Unit: 2634

to transmitted reference data. (note paragraph 50, 53, 64-65) Monitor signal is used to determine the channel characteristics, and through this information necessary adjustments are made.

Although Gross teaches establishing a communication channel between the two transceivers, Gross does not explicitly disclose transmitting signals during initial stage of establishing the communication channel in low power mode. Palm teaches this limitation. Palm teaches activation of DSL modem, in the same field of endeavor, limiting power (or low power mode) during initialization procedure by reducing multiplicity of carriers. (note paragraph 131) Therefore, it would have been obvious to one skilled in the art at the time of invention to include the feature taught by Palm in Gross' teaching of initialization procedures in Fig.8 as the motivation to combine would be to reduce interference with voice communication during DSL modem initialization. Palm describes that by reducing the amount of multiplicity of carriers to a predetermined number of carriers reduces transmission power or changes to a low power mode.

Regarding claims 2, 11, 13, 18 and 26, Gross in view of Pam teaches all subject matter claimed, as applied to claim 1, 17 or 25. Gross further discloses providing training parameters or monitor signals taking places in both directions. (note paragraph 31)

Regarding claims 3, 4, 14, 15 and 24, Gross in view of Pam teaches all subject matter claimed, as applied to claim 1, 13 or 23. As previously explained, Gross discloses establishing the channel with smallest power level. (note paragraph 59) Further discloses low power mode includes cutback of 9 dB. (note paragraph 61)

Art Unit: 2634

Regarding claims 5, 6, 7-10, 16, 17, 19, 20, 25 and 27, Gross in view of Pam teaches all subject matter claimed, as applied to claim 1, 13, 18, 23 or 26. Gross teaches training parameter including phase distortion and amplitude distortion of communication channel. (note paragraph 64-65) Further, Gross teaches training parameter or monitor signal comprising transmitter characteristics, such as carrier frequency and carrier phase. Gross also teaches data rate, which could be interpreted as symbol timing as one of training parameter. (note paragraph 59)

Regarding claims 22 and 23, Gross in view of Pam teaches all subject matter claimed, as applied to claim 21. Gross further teaches both first and second transceiver being a DSL modem. (note abstract)

Regarding claim 30, Gross in view of Pam teaches all subject matter claimed, as applied to claim 1. As explained above, Palm teaches reducing to a predetermined number of carriers, which results in a predetermined lowered transmission power.

Regarding claims 31 and 32, Gross in view of Pam teaches all subject matter claimed, as applied to claim 12 or 21. Gross further teaches power level adjustments according to test signal measurements and increasing or decreasing power level by a predetermined level. (note paragraphs 113-114) Although Gross does not teach the power levels being stored, it would be obvious for the system to identify the level amount of adjustment through retrieving stored data of power levels.

Art Unit: 2634

Regarding claims 29 and 34, Gross in view of Pam teaches all subject matter claimed, as applied to claim 1 or 33. Gross in view of Palm, as explained previously teaches performing training in low power mode. Although Palm does not explicitly disclose increasing the power level until connection is established, one skilled in the art would recognize that when an initial amount of predetermined number of carriers transmitting in a limited power level does not receive any acknowledgement from the receiver that signal was not transmitted successfully, the system would increase the power level by increasing the predetermined number of carriers and increasing the transmitting power level.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following references are cited as having relative subject matter in regards to DSL handshake.

Handshake procedures for digital subscriber line transceivers, ITU-T Recommendation G.994.1

Tzannes, US Patent ('609)

Cole, US Patent ('241)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam K Ahn whose telephone number is 703-305-0754. The examiner can normally be reached on Mon-Fri 9am - 6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 703-305-4714. The fax phone numbers for the

Art Unit: 2634

organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

SKA

August 8, 2003



STEPHEN CHIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600